Product datasheet

Human Tissue type Plasminogen Activator ELISA Kit
ab119563

1 Abreviews  1 Image

Overview

Product name: Human Tissue type Plasminogen Activator ELISA Kit
Detection method: Colorimetric

Precision

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>8</td>
<td></td>
<td></td>
<td>3.6%</td>
</tr>
</tbody>
</table>

Intra-assay

<table>
<thead>
<tr>
<th>Sample</th>
<th>n</th>
<th>Mean</th>
<th>SD</th>
<th>CV%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>8</td>
<td></td>
<td></td>
<td>6.5%</td>
</tr>
</tbody>
</table>

Inter-assay

Sample type: Cell culture supernatant, Serum
Assay type: Sandwich (quantitative)
Sensitivity: 6 pg/ml
Range: 15.6 pg/ml - 1000 pg/ml
Recovery

<table>
<thead>
<tr>
<th>Sample type</th>
<th>Average %</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serum</td>
<td>98</td>
<td>77% - 109%</td>
</tr>
</tbody>
</table>

Assay duration: Multiple steps standard assay
Species reactivity: Reacts with: Human

Abcam’s Tissue type Plasminogen Activator Human in vitro ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for accurate quantitative measurement of Human Tissue type Plasminogen Activator concentrations in Cell culture supernatant and serum.

Tissue type Plasminogen Activator specific antibody has been precoated onto 96-well plates. Standards and test samples are added to the wells along with an HRP-conjugated Tissue type
Plasminogen Activator detection antibody and the microplate is then incubated at room
temperature and unbound proteins are then washed away with a wash buffer. TMB is then added
and catalyzed by HRP to produce a blue color product that subsequently changes to yellow after
addition of acidic stop solution. The density of yellow coloration is directly proportional to the
Tissue type Plasminogen Activator amount of sample captured on the plate.

Get higher sensitivity in only 90 minutes with Human Tissue Plasminogen Activator ELISA Kit
(ab190812) from our SimpleStep ELISA® range.

**Tested applications**

**Suitable for:** Sandwich ELISA

**Platform**

Microplate

**Properties**

**Storage instructions**

Store at +4°C. Please refer to protocols.

<table>
<thead>
<tr>
<th>Components</th>
<th>1 x 96 tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>20X Assay Buffer Concentrate</td>
<td>1 x 5ml</td>
</tr>
<tr>
<td>20X Wash Buffer Concentrate</td>
<td>1 x 50ml</td>
</tr>
<tr>
<td>Adhesive Films</td>
<td>2 units</td>
</tr>
<tr>
<td>HRP-Conjugate anti-human Tissue type Plasminogen Activator polyclonal antibody</td>
<td>1 x 70µl</td>
</tr>
<tr>
<td>Human Tissue type Plasminogen Activator Standard lyophilized</td>
<td>2 vials</td>
</tr>
<tr>
<td>Microplate coated with polyclonal antibody to Human Tissue type Plasminogen Activator (12 x 8 wells)</td>
<td>1 unit</td>
</tr>
<tr>
<td>Sample Diluent</td>
<td>1 x 12ml</td>
</tr>
<tr>
<td>Stop Solution (1M Phosphoric acid)</td>
<td>1 x 15ml</td>
</tr>
<tr>
<td>TMB Substrate Solution</td>
<td>1 x 15ml</td>
</tr>
</tbody>
</table>

**Function**

Converts the abundant, but inactive, zymogen plasminogen to plasmin by hydrolyzing a single Arg-
Val bond in plasminogen. By controlling plasmin-mediated proteolysis, it plays an important role in
tissue remodeling and degradation, in cell migration and many other physiopathological events.
Play a direct role in facilitating neuronal migration.

**Tissue specificity**

Synthesized in numerous tissues (including tumors) and secreted into most extracellular body
fluids, such as plasma, uterine fluid, saliva, gingival crevicular fluid, tears, seminal fluid, and milk.

**Involvement in disease**

Note=Increased activity of TPA results in increased fibrinolysis of fibrin blood clots that is
associated with excessive bleeding. Defective release of TPA results in hypofibrinolysis that can
lead to thrombosis or embolism.

**Sequence similarities**

Belongs to the peptidase S1 family.
Contains 1 EGF-like domain.
Contains 1 fibronectin type-I domain.
Contains 2 kringle domains.
Contains 1 peptidase S1 domain.

**Domain**

Both FN1 and one of the kringle domains are required for binding to fibrin.
Both FN1 and EGF-like domains are important for binding to LRP1. The FN1 domain mediates binding to annexin A2. The second kringle domain is implicated in binding to cytokeratin-8 and to the endothelial cell surface binding site.

**Post-translational modifications**

The single chain, almost fully active enzyme, can be further processed into a two-chain fully active form by a cleavage after Arg-310 catalyzed by plasmin, tissue kallikrein or factor Xa. Differential cell-specific N-linked glycosylation gives rise to two glycoforms, type I (glycosylated at Asn-219) and type II (not glycosylated at Asn-219). The single chain type I glycoform is less readily converted into the two-chain form by plasmin, and the two-chain type I glycoform has a lower activity than the two-chain type II glycoform in the presence of fibrin.

N-glycosylation of Asn-152; the bound oligomannosidic glycan is involved in the interaction with the mannose receptor.

Characterization of O-linked glycan was studied in Bowes melanoma cell line.

**Cellular localization**

Secreted > extracellular space.

**Applications**

Our **Abpromise guarantee** covers the use of **ab119563** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sandwich ELISA</td>
<td></td>
<td>Use at an assay dependent concentration.</td>
</tr>
</tbody>
</table>

**Images**

Representative Standard Curve using ab119563.

![Typical Standard Curve](image)

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